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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,621	09/29/2004	Jung-Hoon Anh	3260-26	1011
23117	7590	02/03/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			SHAW, AMANDA MARIE	
			ART UNIT	PAPER NUMBER
			1634	
DATE MAILED: 02/03/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/509,621	Applicant(s) ANH ET AL.	
	Examiner Amanda M. Shaw	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 and 15-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/29/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

Election/Restrictions

1. Applicant's election with traverse of Group 12 in the reply filed on November 30, 2006 is acknowledged. Applicants also elected the myeloid monocyte derived dendritic cells and the nucleotides recited in Claim 14 as their species. The traversal is on the ground(s) that search and examination of all the claimed subject matter would not be undue burden on the Examiner. This is not found persuasive because these inventions are distinct and have acquired a separate status in the art because of their recognized divergent subject matter, therefore restriction for examination purposes as indicated is proper. For example, a search for the method of identifying a dendritic cell and the microarrays would not be co-extensive because a search indicating the method is novel or nonobvious would not extend to a holding that the product itself is novel or nonobvious; similarly, a search indicating that the product is known or would have been obvious would not extend to a holding that the process is known or would have been obvious.

The requirement is still deemed proper and is therefore made FINAL.

In a telephone interview on January 24, 2006, BJ Sadoff further clarified that the applicant intended to request examination of the combination of all of the genes recited in Claim 14. As a result the Claims 12-13 and 15-20 will not be examined herein since they are not drawn to the same combination of genes recited in Claim 14. Only Claim 14 will be examined in this Office Action.

In response to this Office action, claim 14 should be amended so that the claim is limited to the elected subject matter – i.e., a microarray comprising the combination of each of the genes set forth in claim 14.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Affymetrix (Affymetrix Data Sheet, HuGeneFL Array, released November 1998).

Regarding Claim 14, Affymetrix teach a microarray containing nucleotide sequences from the following genes: thymus and activation-regulated chemokine gene or its fragment, dihydropyrimidinase related protein-2 gene or its fragment, lysosomal acid lipase or its fragment, calmodulin gene or its fragment, interferon regulatory factor 4 gene or its fragment, DC-Lamp gene or its fragment and the combination thereof. The Affymetrix GeneChip HuGeneFL Array is a single array that enables the relative monitoring of mRNA transcripts of approximately 5,6000 full length human genes. The HuGeneFL Array has been available for sale since November 1998 (Affymetrix Data Sheet). Specifically the HuGeneFL Array contains the thymus and activation-regulated chemokine gene (Symbol CCL17), the dihydropyrimidinase related protein-2 gene (Symbol DPYSL2), the lysosomal acid lipase gene (GenBank U04285), the calmodulin

gene (Symbol CALM2), and the interferon regulatory factor 4 gene (Symbol IRF4)(Array Finder available via the Internet at <URL: affymetrix.com>).

3. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Fodor et al (PGPUB 20010053519).

Regarding Claim 14, Fodor et al teach a microarray containing fragments from the following genes: thymus and activation-regulated chemokine gene, dihydropyrimidinase related protein-2 gene, lysosomal acid lipase, calmodulin gene, interferon regulatory factor 4 gene, DC-Lamp gene. Specifically Fodor et al teach nucleic probes containing 10 or more nucleotides attached to a solid support to form an array which can be used to monitor gene expression levels by hybridization of the array to a DNA library (Column 1, lines 32-37). The nucleic acid array taught by Fodor et al comprises a complete set of 1,048,576 distinct oligonucleotide sequences that are 10 nucleotides long (Claim 5). Since the microarray of Fodor comprises all possible 10 mers, this microarray includes 10 mer fragments of the genes mentioned above.

Conclusion

4. No Claims are allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda M. Shaw whose telephone number is (571) 272-8668. The examiner can normally be reached on Mon-Fri 7:30 TO 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (571) 272-0745. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda M. Shaw
Examiner
Art Unit 1634
January 31, 2006


CARLA J. MYERS
PRIMARY EXAMINER